REMARKS

The Examiner objected to claims 28-29 as not further limiting a claim from which they depend. These claims recite the method of a preceding claim (claim 14 in the case of claim 28 and claim 15 in the case of claim 29) wherein the previously recited step of providing at least two different ion sources comprises providing a matrix-assisted laser desorption ionization apparatus. Thus, each of these claims limits the previously recited step of providing at least two different ion sources to making one of those sources a so-called MALDI ionization apparatus. This does clearly further limit the at least two different ion sources limitation of the parent claim to a MALDI source and at least one other. This objection to claims 28-29 is thus overcome.

The Examiner rejected claims 2-37 under 35 U. S. C. § 102. The Examiner relied upon Kato U. S. Patent 6,469,297 (hereinafter Kato) to support this rejection. However, claim 2, from which claims 3-15 depend either directly or indirectly, recites

> "[a] spectrometer including apparatus for coupling at least two different ion streams *simultaneously* to the spectrometer from at least two different ion sources."

Emphasis Applicants'. Claim 16, from which claims 17-29 depend either directly or indirectly, recites

> "[a] method of operating a spectrometer including providing at least two different ion sources, and coupling ion streams *simultaneously* from the at least two different ion sources to the spectrometer."

Emphasis Applicants'. Kato neither discloses nor suggests either coupling at least two different ion streams simultaneously to the spectrometer from at least two different ion sources. In Kato, the ion streams are coupled to Kato's sector field mass spectrometer (which is not a time of flight mass spectrometer) sequentially. Kato's sector field mass spectrometer is not capable of processing multiple ion streams simultaneously. This, the ability to simultaneously process multiple ion streams, is one of the advantages of the present claimed system that distinguishes the present claimed system over the prior art. Thus, claims 2-29 distinguish patentably over Kato.

Claim 30, from which claims 31, 33, 34, 36 and 37 depend either directly or indirectly, has been amended to recite

> "[a] method of operating a spectrometer including providing at least two different ion sources, first coupling an ion stream from a first one of said ion sources into the spectrometer, next coupling an

ion stream from a second one of said ion sources into the spectrometer, next coupling an ion stream from the second one of said ion sources into the spectrometer, next coupling an ion stream from the first one of said ion sources into the spectrometer, developing mass spectra from the coupling of ion streams from said second one of said ion sources into the spectrometer while coupling an ion stream from said first one of said ion sources into the spectrometer and developing mass spectra from the coupling of ion streams from said first one of said ion sources into the spectrometer while coupling an ion stream from said second one of said ion sources into the spectrometer."

Kato neither discloses nor suggests amended claim 30's specifically recited

> "first coupling an ion stream from a first one of said ion sources into the spectrometer, next coupling an ion stream from a second one of said ion sources into the spectrometer, next coupling an ion stream from the second one of said ion sources into the spectrometer, next coupling an ion stream from the first one of said ion sources into the spectrometer, developing mass spectra from the coupling of ion streams from said second one of said ion sources into the spectrometer while coupling an ion stream from said first one of said ion sources into the spectrometer and developing mass spectra from the coupling of ion streams from said first one of said ion sources into the spectrometer while coupling an ion stream from said second one of said ion sources into the spectrometer"

in order to achieve the processing time advantages set forth in the detailed description, *viz.*,

> "Because of the relatively much longer time to obtain an ESI spectrum, it may be beneficial to keep the ICP ion beam gate 60-n open and obtain another ICP mass spectrum before closing the ICP gate 60-n and reopening the ESI beam gate 60-1 to extract another ESI spectrum. This way, during the time that the second ESI spectrum data is being collected, both ICP spectra can be analyzed. Then, this sequence of steps can be repeated."

The present application as filed, page 20, line 32-page 21, line 5.

The Examiner rejected claims 1, 2 and 16 under 35 U. S. C. § 102. The Examiner relied upon Merren U. S. Patent 3,796,872 (hereinafter Merren) to support these rejections. As previously noted, claims 2 and 16 both require coupling at least two different ion streams simultaneously to the spectrometer from at least two different ion sources. Merren neither discloses nor suggests either coupling at least two different ion streams simultaneously to the spectrometer from at least two different ion sources. In Merren, the ion streams are coupled to Merren's sector field mass spectrometer (which is not a time of flight mass spectrometer)

sequentially. Merren's sector field mass spectrometer is not capable of processing multiple ion streams simultaneously. Again, the ability to simultaneously process multiple ion streams, is one of the features that sets the present claimed system apart from the prior art. Thus, claims 2 and 16 distinguish patentably over Merren.

With respect to claim 1, that claim recites

> "[a] method of acquiring chemical information with a mass spectrometer having (i) a first ionization source for creating ions, (ii) a second ionization source for creating ions, (iii) a first detector for detecting ions, and (iv) a second detector for detecting ions, comprising:
>
> (a) *simultaneously* sampling ions created by said first ionization source and said second ionization source so as to produce a first ion sample and a second ion sample; and
>
> (b) *simultaneously* detecting ions from said first ion sample with said first detector and ions from said second ion sample with said second ion detector."

Emphasis Applicants'. Again, Merren neither discloses nor suggests either coupling at least two different ion streams simultaneously to the spectrometer from at least two different ion sources. In Merren, the ion streams are coupled to Merren's sector field mass spectrometer (which is not a time of flight mass spectrometer) sequentially. Merren's sector field mass spectrometer is not capable of processing multiple ion streams simultaneously. Again, the ability to simultaneously process multiple ion streams, is one of the features that sets the present claimed system apart from the prior art. Thus, claim 1 also distinguishes patentably over Merren.

Claims 1-31, 33, 34, 36 and 37 are thus entitled to further favorable consideration, culminating in allowance, for at least the reasons set forth above.

Please charge any fees that might be due to constitute this a timely response to the December 5, 2005 official action to our Deposit Account No. 10-0435, referencing our matter 29920-75460. A duplicate copy of this authorization is enclosed for that purpose.

Respectfully submitted,

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